

Amendments to Drawings

Please amend FIG. 3 per the enclosed Replacement Sheet 2/5. In particular, a typo mislabeling element 41 as element 39 has been corrected, and a similar element 41 has been added to the left portion of the structure for clarity. Paragraph [0023] and FIG. 4 support these corrections.

Remarks

Claims 27-35 are in the application. Claims 1-26 have been cancelled.

By this amendment, claims 27-35 have been added. FIGS. 3-7 together with the associated specification support the new claims.

Additionally, applicants are submitting herewith a Replacement Sheet 2/5 to correct typographical error as set forth above in the description of the Amendments to the Drawings. Paragraph [0023] and FIG. 4 support this correction.

Claim 27 calls for a lateral FET structure comprising a body of semiconductor material having a first conductivity type and a major surface. First and second drift regions of a second conductivity type are formed in the body of semiconductor material, wherein the first and second drift regions are spaced apart and comprise elongated stripe shapes. A first drain contact region is formed in the first drift region, and a second drain contact region is formed in the second drift region, wherein the first and second drain contacts comprise elongated striped shapes. A first pair of source regions is formed in the body of semiconductor material and on opposing sides of the first drift region, and a second pair of source regions is formed in the body of semiconductor material and on opposing sides of the second drift region. The first and second pairs of source regions comprise elongated stripe shapes, and the first and second pairs of source regions are substantially parallel to the first and second drain contacts. A gate structure is formed adjacent the first second pairs of source regions and the first and second drift regions. A first conductive layer is formed overlying the body of semiconductor material and connects the first and second pairs of source regions together. A second conductive layer different than the first conductive layer is

formed overlying the body of semiconductor material and connects the first and second drain contact regions together. An insulating layer vertically separates the first and second conductive layers.

Applicants respectfully submit that new claim 27 is allowable over the art of record for several reasons. First, none of the references show or suggest a lateral FET device having a first conductive layer formed overlying a body of semiconductor material and connecting first and second pairs of source regions together, and a second conductive layer different than the first conductive layer formed overlying the body of semiconductor material and connecting first and second drain contact regions together, and further having an insulating layer vertically that separates the first and second conductive layers.

Specifically, in Watanabe, only a single metal layer is disclosed in his embodiment as is evident in FIGS. 1B, 1C, 1D, 2B, 2C, 3B, 4B, 5B, 6, 7A, and 8-11. Likewise, Eklund only shows a single metal layer in FIGS. 1B and 2B. In addition, Ludikhuizen only shows a single metal layer in FIGS 2 and 3. For at least these reasons, applicants respectfully submit that claim 27 is allowable.

Claim 28 depends from claim 27 and further calls for the first and second conductive layers to overlap. One non-limiting example of such an embodiment is shown in applicants' FIG. 3 and FIG. 6. Since none of the prior of record shows first and second conductive layers as set out in claim 27, they cannot show this additional overlap element of claim 28, and thus, applicants respectfully submit that claim 28 is allowable for this additional reason.

Claim 29 depends from claim 27 and further calls for the first and second conductive layer do not overlap. One non-limiting example of such an embodiment is shown in applicants' FIGS. 3 and 5. Since none of the prior of record show or suggest

first and second conductive layers as set out in claim 27, they cannot show this additional non-overlap element of claim 29, and thus, applicants respectfully submit that claim 29 is allowable for this additional reason.

Claim 30 depends from claim 27 and further calls for the first and second pairs of source regions to comprise elongated stripe regions having rounded tips at opposing ends. Applicants respectfully submit that claim 30 is allowable for the same reasons as claim 27. Additionally, applicants respectfully submit that none of the relied upon references show or suggest source region comprising elongated stripe regions having rounded tips at opposing ends.

Claim 31 depends from claim 27 and further calls for the second conductive layer to overlies where one of the first and second drift regions terminate at the major surface. A non-limiting example of such an embodiment is shown in applicants' FIG. 7. Applicants respectfully submit that claim 31 is allowable for the same reasons as claim 27. Additionally, applicants respectfully submit that none of the relied upon references show or suggest this additional element of claim 31.

Claim 32 depends from claim 27 and further calls for the first and second pairs of source regions and the first and second drain contact regions to have equal lengths. Applicants respectfully submit that claim 32 is allowable for the same reasons as claim 27. Additionally, applicants respectfully submit that none of the relied upon references show or suggest first and second pairs of source regions and first and second drain contact regions having equal lengths. In Ludikuize, drain region 11 is clearly longer than source regions 6.

Claim 33 depends from claim 27 and further calls for a doped region of the first conductivity type formed in the body of semiconductor material completely surrounding the first and second drift regions. Applicants respectfully submit that claim

33 is allowable for the same reasons as claim 27. Additionally, applicants respectfully submit that none of the relied upon references show or suggest the additional element set forth in claim 33.

Claim 34 depends from claim 33 and is believed allowable for at least the same reasons as claim 34.

Claim 35 depends from claim 27 and further calls for a doped region of the first conductivity type formed in the first drift region and spaced apart from first drain contact. Applicants respectfully submit that claim 35 is allowable for at least the same reasons as claim 27. Additionally, applicants respectfully submit that none of the relied upon references show or suggest a doped region of the first conductivity type formed in the first drift region and spaced apart from the first drain contact. In Eklund, region 27 contacts drain contact 24 as shown in Eklund's FIGS. 1B and 2B.

In view of the above, it is believed that the application is now in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

Zia Hossain et al.



Kevin B. Jackson
Attorney for Applicants
Reg. No. 38,502
Tel. (602) 244-4885
Fax. (602) 244-3169

ON Semiconductor
Law Dept./MD A700
P.O. Box 62890
Phoenix, AZ 85082-2890

Date: July 1, 2005